UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,735	06/23/2000	Noaki Watanabe	501.38590X00	· 1503

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EXAMINER
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ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/599,735	WATANABE ET AL.
		Examiner	Art Unit
		GWEN LIANG	2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *14 May 2004*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-11,14-18 and 20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *20* is/are allowed.

6) ☒ Claim(s) *3,6-11 and 14-18* is/are rejected.

7) ☒ Claim(s) *1,2,4,5* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

1.   This action is responsive to communications: Amendment E, filed on 4/14/2004

and Request for Continued Examination filed on 5/14/2004. Claims 1-11, 14-18 and 20

are pending.

Claim Objections

2.   Claims 1-10 are objected to because of the following informalities:

In independent claim 1, the claim language "wherein said control unit receives a

function execution request, requesting execution of one of the function programs, from

the server computer, ..." in lines 10-12 needs to be changed to clearly show the claimed

subject matter. The examiner suggests that the claim language be changed to "wherein

said control unit receives a function execution request from the server computer,

requesting execution of one of the function programs, ...".

In claim 7, the word "said" in the claim language "said the selected function

program" in line 4 needs to be deleted.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
subject matter which the applicant regards as his invention.

4.   Claims 3, 6-11 and 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Claim 3 recites the limitation "disk units" in line 3 of the claim. There is

insufficient antecedent basis for this limitation in the claim. The limitation " disk units" is

not exactly found in any of the preceding features in the claim.

Claim 6 recites the limitation "the case" in line 3 of the claim. There is insufficient

antecedent basis for this limitation in the claim.

Claims 7 and 8 are similarly rejected based on the reasons given for claim 6.

Claim 15 recites the limitation "the server" in line 8 of the claim. There is

insufficient antecedent basis for this limitation in the claim. The limitation "the server" is

not exactly found in any of the preceding features in the claim.

Claim 15 recites the limitation "the function" in line 13 of the claim. There is

insufficient antecedent basis for this limitation in the claim. The limitation " the function "

is not exactly found in any of the preceding features in the claim.

Claim 16 recites the limitation "the selected function program" in line 3 of the

claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 is similarly rejected based on the reasons given for claim 16.

Allowable Subject Matter

5.   As allowable subject matter has been indicated, applicant's reply must either

comply with all formal requirements or specifically traverse each requirement not

complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

6.   Claim 20 is allowed and claims 1-11 and 15-18 would be allowable if rewritten or

amended to overcome the objections of minor informalities and/or the rejection(s) under 35

U.S.C. 112, second paragraph, set forth in this Office action.

The following is an examiner's statement of reasons for allowance:

In independent claim 1, the limitation of "a control unit ... wherein said control

unit receives one of the function programs from the server computer and stores the

received function program into the memory, wherein said control unit receives a function

execution request ... from the server computer, selects the requested function program

from the memory, selects the function information in connection with the selected

function program, and executes the selected function program according to a condition

described in the selected function information,

wherein the function execution request is sent from the client computer to the

server computer to request execution of one of the function programs, and wherein said

control unit examines, based on the selected function information whether an access

from external of said disk unit to the data stored in said disk storage media is allowable

and restricts accesses to the data stored in the disk storage media from external of said

disk unit during execution of the selected function program.", taken with the other

limitations of the claim, were not disclosed by, would not have been obvious over, nor

otherwise fairly disclosed by the prior art of record.

In independent claim 15, the limitation of "receiving, in a disk unit, a function

program and function information relating to execution of the function program from the

server; executing, in said disk unit, the function program in response to a function

execution request from the client computer as per the function information; and examining, in said disk unit, based on the function information, accesses from external of said disk unit to the data stored in said disk storage media and restricting the access during execution of the function", taken with the other limitations of the claim, were not disclosed by, would not have been obvious over, nor otherwise fairly disclosed by the prior art of record.

In independent claim 20, the limitation of "A client/server system ... wherein said client computer requests execution of a function program by said server computer, wherein said server computer creates function information relating to execution of the function program that has been requested from said client computer, and wherein a disk unit receives the function program and the function information from the server computer, executes the function program as per the function information and examines, based on the function information, accesses from external of said disk unit to the data stored in said disk storage media and restricts the accesses during execution of the function program", taken with the other limitations of the claim, were not disclosed by, would not have been obvious over, nor otherwise fairly disclosed by the prior art of record.

Response to Arguments

7.   Applicant's arguments regarding Claim 14 have been fully considered but they are not persuasive.

Applicant's arguments regarding that the Examiner states that "the limitation of 'a control unit ...wherein said control unit receives one of the function program from the

server computer"' is one of the reasons for allowance of the claims 1-10, 15-18 and 20

and that since this limitation is now recited in claim 14, claim 14 now recites features

identified by the Examiner as distinguishing the present invention from that taught by

the references of record have been fully considered but they are not persuasive. The

reasons for allowance of the other claims are not based on only one limitation, but

rather a combination of a plurality of limitations Furthermore, this newly added limitation

is rejected as reasons stated for claim 14 in this office action, Lei teaches in column 7

various functions, some built-in and some user-defined, which are considered to be

functions received by the control unit of the server. The server as a whole can be

viewed as a disk unit as claimed, since it is inherent that a server contains a disk

storage media and a control unit to control all the function execution.

Claim Rejections - 35 USC § 102

8.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9.   Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Lei et al., "Lei" (U.S.

Patent No. 6,487,552).

With respect to claim 14, Lei discloses a disk unit comprising:

disk storage media to store data (See for example: col. 5 lines 24-26, "A storage

device 110, such as a magnetic disk or optical disk, is provided and coupled to bus 102

for storing information and instructions."; Fig. 1 element 110 "STORAGE DEVICE"); and

a control unit (See for example: Fig. 2, wherein the contents and process control

indicated in the "SERVER SIDE" box illustrates a control unit),

wherein said control unit receives a plurality of function programs (See for example: col.

7 lines 6-12, wherein the GetContextValue is a "built in" function of the database server;

col. 7 lines 18-22; In the first of the queries, My_department is a user defined function to

get the department number for the user with USER_ID. In the second query, the

GetContextValue function is invoked to retrieve the value of a context variable that

indicates the department number of the current user"; wherein a plurality of function

programs are received by said control unit.)

wherein said control unit receives function execution requests and user ID

information from a client unit via a network to request execution of one of a plurality of

function programs, selects the requested function program (See for example: col. 8

lines 46-56, "Examples of information that, taken collectively, makes up the context of a

query include: the session_id of the session in which a query is received the user_id of

the user that initiated the session the type of access required by the query (insert,

update, select, delete) the type of application used to issue the query the IP address

identified in the message containing the query the session environment (including the

actual date/time, enabled roles, etc.)", wherein the query - insert, update, select delete -

received from the user is equivalent to function execution requests received from a

client. The IP address used in identifying the message makes it obvious that the request is received via a network.), and

wherein said control unit, based on said user ID information, creates function information to examine accesses from external of said disk unit to an access area for data stored in said storage media at each function execution request, selects the function information in connection with the selected function program, executes the selected function program as per the selected function information and examines accesses from external of said disk unit to the access area based on said function information, and restricts the access (See for .example, col. 14 lines 27-43, 'For example, assume that the access policy of table t is that everyone is allowed to see all of the records in their own department, but can only modify the records that apply to themselves. Further, assume that access to table t is only allowed on weekdays (Monday-Friday), unless the access is performed by a database administrator. The logic used by the policy function that implements this policy could be: if GetContextValue(access_type)=modify then add_predicate("t.user_id=GetContextValue(user_id)") else add_predicate("t.dept_no=GetContextValue(dept_id); if ((GetContextValue(today)=Saturday) or (GetContextValue(today)=Sunday)) and (GetContextValue(user_type)<>dba) then add_predicate"1=2")').

10.   Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Wiederhold (U.S. Patent No. 6,226,745).

With respect to claim 14, Wiederhold discloses a disk unit comprising:

disk storage media to store data (See for example: Fig. 2 "Medical Database");
and

a control unit (See for example: Abstract "A security mediator system is used in a
computer system having a database of information to be shared with authorized users
in accordance with pre-defined constraints."; Fig. 2 "Security mediator", which is
equivalent to a control unit),

wherein said control unit receives function execution requests and user ID information
from a client unit via a network to request execution of one of a plurality of function
programs, selects the requested function program (See for example: Abstract, "The
rules database includes data for specifying, for each of a plurality of specified groups of
users, which of the rules in the rules database are applicable to queries received from
users in each of the groups. A query pre-processing module applies to each received
query all pre-processing rules in the rules database applicable to the query in
accordance with the identified user who submitted the query. ... A database access
module executing each enabled query to produce a corresponding result."; col. 9 lines
12-15, "In other words, if users can issue project-select-join queries, then they can
perform project, select, and join operations on a sequence of answers."), and

wherein said control unit, based on said user ID information, creates function
information to examine accesses from external of said disk unit to an access area for
data stored in said storage media at each function execution request, selects the
function information in connection with the selected function program, executes the
selected function program as per the selected function information and examines

accesses from external of said disk unit to the access area based on said function

information, and restricts the access (See for example: Abstract, "The rules database

includes data for specifying, for each of a plurality of specified groups of users, which of

the rules in the rules database are applicable to queries received from users in each of

the groups. A query pre-processing module applies to each received query all pre-

processing rules in the rules database applicable to the query in accordance with the

identified user who submitted the query. If any applicable rule is not passed, the query

is blocked; otherwise execution of the query is enabled. A database access module

executing each enabled query to produce a corresponding result.").
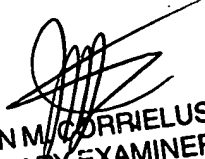
Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to GWEN LIANG whose telephone number is 703-305-3985. The

examiner can normally be reached on 9:00 A.M. - 5:30 P.M. Monday and Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, JOHN BREENE can be reached on (703) 305-9790. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

G.L.

22 June 2004

JEAN M. CORRIELUS
PRIMARY EXAMINER